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Modified PTO/SB/05 (03-01)
Approved for use through 10/31/2002 OMB 0651-0032 OUS. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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UTILITY PATENT APPLICATION **TRANSMITTAL**

HA-87 (HAL-ID 202) Attorney Docket No. First Inventor Carl SCARPA A NOVEL OFDM CHANNEL ESTIMATION TECHNIQUE USING THE CONSTANT MODULUS

(Only for new nonprovisional applications under 37 CFR 1.53(b))

APPLICATION ELEMENTS ADDRESS TO: Box Patent Application				oner for Patents on			
See MPEP chapter 600 concerning utility patent application contents.			Washington, DC 20231				
Fee Transmittal Form (e.g., PTO/SB/17) (Submit an original and a displicate for fee processing)				7 CD-ROM or CD-R in duplicate, large table or			
Applicant claims small entity status. See 37 CFR 1.27. Computer Program (Appendix) 8. Nucleotide and/or Amino Acid Sequer (if applicable, all necessary)				-	ubmission		
3 Specification (preferred arrangement se	[Total Pages 34] Computer Readable Form (CRF)						
- Descriptive title o	of the invention to Related Applications		b. Sp	ecification Sequence l	isting or	١.	
- Statement Regar	rding Fed sponsored R & D			, U CD-ROM or	CD-R (2	copie	s); or
	quence listing, a table, rogram listing appendix		-	paper paper			
- Background of ti - Brief Summary of	ne Invention		с.	Statements verifyir	ng identity	y of ab	ove copies
- Brief Description	of the Drawings (if filed)			CCOMPANYING A	PPLIC	ATIO	N PARTS
- Detailed Descпр - Claim(s)	tion		9.		-	sheet 8	document(s)) Power of
- Abstract of the D	Disclosure		10 _	37 CFR 3.73(b) Sta (when there is an as			Attorney
4 X Drawing(s) (35 U	.S.C. 113) [Total Sheets 7		11 [English Translation	Docume	nt <i>(if a</i>	pplicable)
5. Oath or Declaration w/Pow	rer of Attorney [Total Pages 3		12. 🗵	Information Disclos Statement (IDS)/P1		X	Copies of IDS Citations
a. X Newly execut	ted (original or copy)		13	Preliminary Amend	ment		
	orior application (37 CFR 1.63 (d) onldivisional with Box 18 completed		14.	Return Receipt Pos (Should be specifical			503)
	ON OF INVENTOR(S) ement attached deleting inventor(s)		15.	Certified Copy of P		cumer	nt(s)
named in th	e prior application, see 37 CFR		16.	Nonpublication Requ	est under		
1 63(d)(2) a	ind 1 33(b)			(b)(2)(B)(i). Applica or its equivalent.	ınt must a	attach	form PTO/SB/35
6 Application Data	Sheet. See 37 CFR 1.76		17.	Other:			
	TION, check appropriate box, and	supply the req	uisite infoi	rmation below and ın a pre	eliminary a	mendr	nent,
or in an Application Data Shee	t under 37 CFR 1 76: Divisional Continuation-ir	n-part (CIP)	of	onor application No.:			
Prior application information	Examiner		۷.,	Group Art Unit.			
For CONTINUATION OR DIVIS	IONAL APPS only The entire discl	osure of the p	nor applic	ation, from which an oath	or declara	ation is	supplied under
Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.							
19. CORRESPONDENCE ADDRESS							
(Insert Customer No or Attach bar code label here) Customer Number or Bar Code Label 26479 Or				Correspond	lence add	lress below	
Name	Straub & Pokotylo						
	1 Bethany Road						
Address	Suite 83, Bldg. 6		—		,		
City	Hazlet		State	N.J.	Zip (Code	07730
Country	USA	Telepi	hone	(732) 335-1222	Fa	ax	(732) 335-1228
Name (PrintlType)	Michael P. Straub		Regis	tration No. (AttorneylA	gent)	36,9	41
Signature	Michael BS	trans			Date	Janu	ary > 2002

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FEE TRANSMITTAL for FY 2001

Patent fees are subject to annual revision

TOTAL AMOUNT OF PAYMENT

(\$) 1,314.00

C	omplete if Known			
Application Number	Not yet assigned			
Filing Date	Herewith			
First Named Inventor	Carl SCARPA			
Examiner Name	Not yet assigned			
Group Art Unit	Not yet assigned			
Attorney Docket No.	HA-87 (HAL-ID 202)			

METHOD OF DAVAGENT				
	METHOD OF PAYMENT FEE CALCULATION (continued)			
1. The Commissioner is hereby authorized to.	3. ADDITIONAL FEES Large Small			
Deposit Account 50-1049	Entity Entity			
Number	Fee Fee Fee Fee Fee Description Code (\$) Code (\$)	Fee Paid		
Deposit Account Name Straub & Pokotylo	105 130 205 65 Surcharge - late filing fee or oath			
Charge any deficiency or credit any overpayment	127 50 227 25 Surcharge - late provisional filing fee or cover sheet			
Applicant claims small entity status	139 130 139 130 Non-English specification			
See 37 CFR 1 27	147 2,520 147 2,520 For filing a request for ex parte reexamination			
2. Money Other Other	112 920* 112 920* Requesting publication of SIR prior to Examiner action			
FEE CALCULATION	113 1,840* 113 1,840* Requesting publication of SIR after Examiner action			
1. BASIC FILING FEE	115 110 215 55 Extension for reply within first month			
Large Entity Small Entity	116 400 216 200 Extension for reply within second month			
Fee Fee Fee Fee Description Code (\$) Code (\$) Fee Paid	117 920 217 460 Extension for reply within third month			
101 740 201 370 Utility filing fee 740.00	118 1,440 218 720 Extension for reply within fourth month			
106 330 206 165 Design filing fee	128 1,960 228 980 Extension for reply within fifth month			
107 510 207 255 Plant filing fee	119 320 219 160 Notice of Appeal			
108 740 208 370 Reissue filing fee	120 320 220 160 Filing a brief in support of an appeal			
114 160 214 80 Provisional filing fee	121 280 221 140 Request for oral hearing			
SUBTOTAL(1) (\$) 740.00	138 1,510 138 1,510 Petition to institute a public use proceeding			
	140 110 240 55 Petition to revive - unavoidable			
2. EXTRA CLAIM FEES Fee from	141 1,280 241 640 Petition to revive - unintentional			
Extra Claims below Fee Paid	142 1,280 242 640 Utility issue fee (or reissue)			
Total Claims 31 -20** = 11 X 18 = 198.00 Independent 7 - 3** = 4 X 94 226.00	143 460 243 230 Design issue fee			
Claims 4 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	144 620 244 310 Plant issue fee			
Multiple Dependent	122 130 122 130 Petitions to the Commissioner			
Large Entity Small Entity	123 50 123 50 Processing fee under 37 CFR 1 17(q)			
Fee Fee Fee Fee Description	126 180 126 180 Submission of Information Disclosure			
Code (\$) Code (\$)	581 40 581 40 Recording each patent assignment per property (times number of properties)	40.00		
103 18 203 9 Claims in excess of 20 102 84 202 42 Independent claims in excess of 3	, , , , ,			
	146 740 246 370 Filing a submission after final rejection (37 CFR § 1.129(a))			
104 280 204 140 Multiple dependent claim, if not paid 109 84 209 42 "Reissue independent claims over onginal patent	149 740 249 370 For each additional invention to be examined (37 CFR § 1 129(b))			
**Reissue claims in excess of 20	179 740 279 370 Request for Continued Examination (RCE)			
110 18 210 9 and over original patent	169 900 169 900 Request for expedited examination of a design application			
SUBTOTAL (2) (\$) 534.00	Other fee (specify)			
**or number previously paid, if greater, For Reissues, see above	*Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 40.0	00		

SUBMITTED BY Complete (if applicable)					
Name (Pnnt/Type)	Michael P. Straub	Registration No (Attorney/Agent)	36,941	Telephone	(732) 335-1222
Signature	Muchael	8 Strawl		Date	1/7/02

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